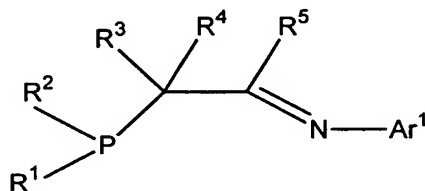


AMENDMENTS

IN THE CLAIMS

1. (original) A process for the polymerization of olefins, comprising, using a polymerization catalyst system comprising a Ni, Pd, Fe or Co complex of a ligand of the formula:

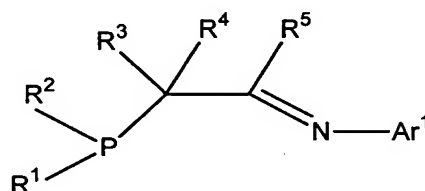


FORMULA (I)

wherein:

- Ar¹ is aryl or substituted aryl;
R¹ is hydrocarbyl, substituted hydrocarbyl, hydrocarbyloxy, or substituted hydrocarbyloxy;
R² hydrocarbyl or substituted hydrocarbyl;
R³ and R⁴ are each hydrocarbyl or substituted hydrocarbyl, or R³ and R⁴ taken together form a ring; and
R⁵ is hydrocarbyl or substituted hydrocarbyl.
2. (original) The process as recited in Claim 1 wherein only 1 molecule of said ligand is coordinated to an atom of said transition metal.
3. (original) The process as recited in Claim 2 which is carried out at a temperature of about -100° C to about +200° C.
4. (original) The process as recited in Claim 3 wherein said olefin is ethylene alone.
5. (original) The process as recited in Claim 4 wherein Ar¹, is phenyl or substituted phenyl.
6. (original) The process as recited in Claim 5 wherein said transition metal is Ni.

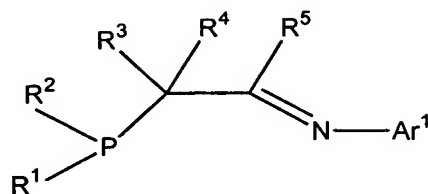
7. (original) The process as recited in Claim 6 wherein:
R¹ is alkyl, substituted alkyl, aryl, substituted aryl, aryloxy, or substituted aryloxy;
R² is alkyl, substituted alkyl, aryl or substituted aryl;
R³ and R⁴ are each independently alkyl or substituted alkyl; and
R⁵ is hydrogen, aryl, substituted aryl, alkyl or substituted alkyl.
8. (original) The process as recited in Claim 3 wherein said transition metal is Pd or Ni.
9. (original) A compound of the formula



FORMULA (I)

wherein:

- Ar¹ is aryl or substituted aryl;
R¹ is hydrocarbyl, substituted hydrocarbyl, hydrocarbyloxy, or substituted hydrocarbyloxy;
R² hydrocarbyl or substituted hydrocarbyl;
R³ and R⁴ are each hydrocarbyl or substituted hydrocarbyl, or R³ and R⁴ taken together form a ring; and
R⁵ is hydrocarbyl or substituted hydrocarbyl.
10. (original) The compound as recited in Claim 9 wherein Ar¹, is phenyl or substituted phenyl.
11. (original) The compound as recited in Claim 10 wherein:
R¹ is alkyl, substituted alkyl, aryl, substituted aryl, aryloxy, or substituted aryloxy;
R² is alkyl, substituted alkyl, aryl or substituted aryl;
R³ and R⁴ are each independently alkyl or substituted alkyl; and
R⁵ is hydrogen, aryl, substituted aryl, alkyl or substituted alkyl.
12. (original) A transition metal complex of a compound of the formula



FORMULA (I)

wherein:

Ar¹ is aryl or substituted aryl;
R¹ is hydrocarbyl, substituted hydrocarbyl, hydrocarbyloxy, or substituted hydrocarbyloxy;
R² hydrocarbyl or substituted hydrocarbyl;
R³ and R⁴ are each hydrocarbyl or substituted hydrocarbyl, or R³ and R⁴ taken together form a ring; and
R⁵ is hydrocarbyl or substituted hydrocarbyl; and
Wherein R⁵ is hydrocarbyl or substituted hydrocarbyl. and wherein said transition metal is Fe, Co, Ni or Pd.

13. (original) The complex as recited in Claim 12 wherein only 1 molecule of said ligand is coordinated to an atom of said transition metal.
14. (original) The complex as recited in Claim 13 wherein said transition metal is Pd or Ni.
15. (original) The complex as recited in Claim 14 wherein:
Ar¹ is phenyl or substituted phenyl;
R¹ is alkyl, substituted alkyl, aryl, substituted aryl, aryloxy, or substituted aryloxy;
R² is alkyl, substituted alkyl, aryl or substituted aryl;
R³ and R⁴ are each independently alkyl or substituted alkyl; and
R⁵ is hydrogen, aryl, substituted aryl, alkyl or substituted alkyl.